UNITED STATES PATENT AND TRADEMARK OFFICE

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10/807,850	03/24/2004	Victor A. Bennett	CALP-006/00US 307826-2008	5467

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COOLEY GODWARD KRONISH LLP	LEWIS, ALICIA M.
ATTN: Patent Group	

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COOLEY GODWARD KRONISH LLP
ATTN: Patent Group
Suite 1100
777 - 6th Street, NW
WASHINGTON, DC 20001

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on _19 November 2007_.
2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) _1,3-5 and 7-9_ is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) _1,3-5 and 7-9_ is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
   a) ☐ All   b) ☐ Some * c) ☐ None of:
   1. ☐ Certified copies of the priority documents have been received.
   2. ☐ Certified copies of the priority documents have been received in Application No. _____.
   3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
   * See the attached detailed Office action for a list of the certified copies not received.

SAM RIMELL
PRIMARY EXAMINER

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This office action is responsive to communication filed November 19, 2007.

Claims 1, 3-5 and 7-9 are currently amended, and claims 2 and 6 have been canceled.

Therefore, claims 1, 3-5 and 7-9 are pending in this application.

Claim Rejections - 35 USC § 112

1.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

2.   Claims 1, 3-5 and 7-9 are rejected under 35 U.S.C. 112, second paragraph, as

being indefinite for failing to particularly point out and distinctly claim the subject matter

which applicant regards as the invention.

3.   With respect to claim 1, the phrases "a context engine to" in line 3, "a read

engine to" in line 7, and "a write engine to" in line 9 of the claim renders the claim

indefinite. It is unclear as to what the intended metes and bounds of the claim are,

since the claim appears to cover anything and everything that does not prohibit actions

from occurring. Claims 3-5 and 7-9 are rejected as being dependent upon claim 1.

Claim Rejections - 35 USC § 101

4.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

Claims 1, 3-5 and 7-9 are rejected under 35 U.S.C. 101 because the claimed

invention lacks patentable utility. Claim 1 does not recite any code or steps for causing

the engines to do anything, but instead just includes engines "to" perform the suggested

functions. The claim language simply ensures that there are no steps or code that

prohibit the suggested actions from occurring. Therefore, the invention of claim 1 lacks

patentable utility. Claims 3-5 and 7-9 are rejected as being dependent on claim 1.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6.   Claims 1 and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by

Goldberg et al. (US 5,201,046) ('Goldberg').

With respect to claim 1, Goldberg teaches a graph engine for manipulation data

in a database, the graph engine comprising (Figure 3):

a context engine to read information from one or more cells derived from

standardized database statements as context data blocks (column 11 line 60 – column

12 line 10, column 15 lines 15-32), each of the one or more cells (column 13 lines 35-

43) including a header and a payload (Figure 7, column 13 line 44 – column 14 line 30),

the header of each of the one or more cells instructing the graph engine how to process

the cell (column 13 lines 47-59);

a read engine to read data from the database by matching arguments against

entries in the database and returning results from the database (column 20 lines 24-37,

column 20 line 57 – column 21 line 3); and

a write engine to write data into the database by creating an entry in the

database and writing data to that entry in the database (column 15 lines 20-32, column

16 line 30 – column 17 line 15);

wherein information stored in the database is represented in memory in the form

of one or more graph data structures, each graph data structure including one or more

sub-trees (Figures 1 and 4, column 3 lines 28-31, column 6 lines 52-55).

With respect to claim 7, Goldberg teaches wherein the standardized database

statements are structured query language statements (column 8 lines 24-30, column 14

lines 57-60).

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

8.   Claims 3-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Goldberg et al. (US 5,201,046) ('Goldberg') in view of Henderson et al. (US Patent

6,362,993 B1) ('Henderson').

        With respect to claim 3, Goldberg teaches claim 1 and wherein the one or more

sub-trees includes profile data and results (Figures 1 and 4, column 3 lines 28-31,

column 10 line 66—column 11 line 13).

        Goldberg as modified does not teach wherein the one or more sub-trees includes

differential bit matching.

        Henderson teaches a content addressable memory device (see abstract), in

which he teaches differential bit matching (column 6 line 60 – column 7 line 24).

        It would have been obvious to a person having ordinary skill in the art at the time

the invention was made to have modified Goldberg by the teaching of Henderson

because differential bit matching would enable a content addressable memory cell

architecture to be used for improved matching (Henderson, column 3 lines 24-55) for

fast database searches (column 16 line 60 – column 17 line 13).

        With respect to claim 4, Goldberg as modified teaches wherein the read engine

operates by reading data from a location in memory and compares the contents of the

memory location with a search object, the read engine using differential bits between

the contents of the memory location and the search object to locate subsequent

memory locations in the database (Goldberg, column 20 lines 24-37, column 20 line 57

– column 21 line 3; Henderson, column 6 line 60 – column 7 line 24, column 18 lines

14-26, and column 16 line 60 – column 17 line 13).

With respect to claim 5, Goldberg as modified teaches wherein the write engine

operates by identifying the first differential bit between the contents of a memory

location in the database and a search object, and wherein the write engine is further

operable to create a new entry in the database by writing information beginning at the

location of the first differential bit (Goldberg, column 15 lines 20-32, column 16 line 30 –

column 17 line 15; Henderson, column 2 lines 9-33, column 5 lines 36-53, column 15

lines 14-28 and lines 52-62).

9.   Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Goldberg

et al. (US 5,201,046) ('Goldberg') in view of Upton (US Patent 7,080,092 B2).

With respect to claim 8, Goldberg teaches claim 1.

Goldberg does not teach wherein the standardized database statements are

extensible markup language statements.

Upton teaches an application view component for system integration (see

abstract) in which he teaches wherein the standardized database statements are

extensible markup language statements (column 27 lines 28-44, column 28 lines 13-

29).

It would have been obvious to a person having ordinary skill in the art at the time

the invention was made to have modified Goldberg by the teaching of Upton because

wherein the standardized database statements are extensible markup language

statements would enable applications (such as that of Hogan) the ability to have

different views in an interface that allows manipulation of data in the database by non-

programmers using underlying database statements without actually knowing the

standardized statements (Upton, abstract).

10.   Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Goldberg

et al. (US 5,201,046) ('Goldberg') in view of Nakamura et al. (US Patent Application

Publication 2006/0064449 A1) ('Nakamura').

With respect to claim 9, Goldberg teaches claim 1.

Goldberg does not teach wherein the graph engine is bale to process multiple

cells representing multiple instructions by pipelining.

Nakamura teaches an operation apparatus and operation system (see abstract),

in which he teaches wherein the graph engine is bale to process multiple cells

representing multiple instructions by pipelining (paragraph 8).

It would have been obvious to a person having ordinary skill in the art at the time

the invention was made to have modified Goldberg by the teaching Nakamura because

wherein the graph engine is bale to process multiple cells representing multiple

instructions by pipelining would enable high-speed processing (Nakamura, paragraph

8).

Response to Arguments

11.   Applicant's arguments with respect to claims 1, 3-5 and 7-9 have been

considered but are moot in view of the new ground(s) of rejection.

12.   Although Applicant has amended claim 1 to delete the word "operable", the claim

language stills covers anything that does not prohibit actions from occurring, and still

does not recite any code or steps for causing the engines to do anything. As such, the

35 U.S.C. 112 and 101 rejections (regarding the claim language "operable to") are

upheld.

Conclusion

13.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP ·

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia M. Lewis whose telephone number is 571-272-5599. The examiner can normally be reached on Monday - Friday, 9 - 6:30, alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on 571-272-4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Alicia Lewis
February 1, 2008

SAM RIMELL
PRIMARY EXAMINER